



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 114839**

**TO: Jeanine Goldberg**  
**Location: rem/2e74**  
**Art Unit: 1634**  
**Friday, February 20, 2004**

**Case Serial Number: 10/009897**

**From: Barb O'Bryen**  
**Location: Biotech-Chem Library**  
**Remsen E01A69**  
**Phone: 571-272-2518** *BOB*

**barbara.obryen@uspto.gov**

### **Search Notes**

O'Bryen, Barbara

---

**From:** Goldberg, Jeanine  
**Sent:** Friday, February 20, 2004 12:17 PM  
**To:** O'Bryen, Barbara  
**Subject:** RE: 10/009897-seq id no: 38

28 Please.  
thanks

-----Original Message-----

**From:** O'Bryen, Barbara  
**Sent:** Friday, February 20, 2004 12:17 PM  
**To:** Goldberg, Jeanine  
**Subject:** RE: 10/009897-seq id no: 38

Jeanine,  
In the subject line you have seq 38, but the message has seq 28. Which is correct?  
Thanks,  
Barb

-----Original Message-----

**From:** Goldberg, Jeanine  
**Sent:** Friday, February 20, 2004 12:10 PM  
**To:** O'Bryen, Barbara  
**Subject:** 10/009897-seq id no: 38

Can you please tell me if SEQ ID NO: 28 has any hits compared to patent ~~6,495,110~~ searching only against this patent.

THANKS

6492110

Jeanine Enewold Goldberg  
1634  
571-272-0743  
REM 2E74

STIC-ILL

From: Goldberg, Jeanine  
Sent: Friday, February 20, 2004 11:46 AM  
To: STIC-ILL  
Subject: pl ease pull hiv reference

NW  
483360

1. Korber et al. 1997 Human Retroviruses and AIDS: a Compilation and analysis of Nucleic Acid and Amino Acid Sequences, Pp. 118-190. Los Alamos, NM Los Alamos National Laboratory..

THANKS

Jeanine Enewold Goldberg  
1634  
571-272-0743  
REM 2E74

506.20

UMM 2/23

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

cleic - nucleic search, using sw model

n: February 20, 2004, 14:42:01 ; Search time 4 Seconds  
(without alignments)  
2.678 Million cell updates/sec

ct score: 22  
nce: 1 cacaattaaactgtgcattac 22

ng table: IDENTITY NUC  
Gapex 10.0, Gapext 0.5

hed: 112 seqs, 243491 residues

l number of hits satisfying chosen parameters: 224

num DB seq length: 0  
num DB seq length: 2000000000

-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

base: 6492110.seq:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

ID	Score	Query	Length	DB	ID	Description
1	17.4	79.1	2529	1	US-09-184-418C-62	Sequence 62, Appl
2	17.4	79.1	2601	1	US-09-184-418C-60	Sequence 60, Appl
3	17.4	79.1	2652	1	US-09-184-418C-61	Sequence 61, Appl
4	17.4	79.1	8954	1	US-09-184-418C-6	Sequence 6, Appl
5	15.6	70.9	2574	1	US-09-184-418C-107	Sequence 107, App
6	15.6	70.9	2633	1	US-09-184-418C-104	Sequence 104, App
7	15.6	70.9	2651	1	US-09-184-418C-105	Sequence 105, App
8	15.6	70.9	8959	1	US-09-184-418C-11	Sequence 11, Appl
9	15.2	69.1	2583	1	US-09-184-418C-44	Sequence 44, Appl
10	15.2	69.1	2640	1	US-09-184-418C-41	Sequence 41, Appl
11	15.2	69.1	2658	1	US-09-184-418C-42	Sequence 42, Appl
12	15.2	69.1	8992	1	US-09-184-418C-4	Sequence 4, Appl
13	14.2	64.5	2538	1	US-09-184-418C-36	Sequence 36, Appl
14	14.2	64.5	2538	1	US-09-184-418C-54	Sequence 54, Appl
15	14.2	64.5	2541	1	US-09-184-418C-18	Sequence 18, Appl
16	14.2	64.5	2579	1	US-09-184-418C-51	Sequence 51, Appl
17	14.2	64.5	2606	1	US-09-184-418C-33	Sequence 33, Appl
18	14.2	64.5	2610	1	US-09-184-418C-15	Sequence 15, Appl
19	14.2	64.5	2645	1	US-09-184-418C-52	Sequence 52, Appl
20	14.2	64.5	2657	1	US-09-184-418C-34	Sequence 34, Appl
21	14.2	64.5	2661	1	US-09-184-418C-16	Sequence 16, Appl
22	14.2	64.5	8953	1	US-09-184-418C-3	Sequence 3, Appl
23	14.2	64.5	8966	1	US-09-184-418C-5	Sequence 5, Appl
24	14.2	64.5	8968	1	US-09-184-418C-1	Sequence 1, Appl
25	13.6	61.8	2598	1	US-09-184-418C-98	Sequence 98, Appl
26	13.6	61.8	2655	1	US-09-184-418C-95	Sequence 95, Appl
27	13.6	61.8	2721	1	US-09-184-418C-96	Sequence 96, Appl
28	13.6	61.8	9060	1	US-09-184-418C-10	Sequence 10, Appl
29	13.2	60.0	579	1	US-09-184-418C-75	Sequence 75, Appl
30	13.2	60.0	579	1	US-09-184-418C-84	Sequence 84, Appl
31	13.2	60.0	8972	1	US-09-184-418C-9	Sequence 9, Appl
32	13.2	60.0	9010	1	US-09-184-418C-8	Sequence 8, Appl
33	12.6	57.3	2544	1	US-09-184-418C-89	Sequence 89, Appl

## ALIGNMENTS

## RESULT 1

US-09-184-418C-62/c  
; Sequence 62, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1  
; FILE REFERENCE: D6287  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; NUMBER OF SEQ ID NOS: 112  
; SEQ ID NO 62  
; LENGTH: 2529  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
; FEATURE:  
; OTHER INFORMATION: isolate=93BR029; gene=env  
US-09-184-418C-62

Query Match 79.1%; Score 17.4; DB 1; Length 2529;  
Best Local Similarity 94.7%; Pred.No.0.33;  
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 2 ACAATTAAACTGTGCATT 20

Db 1134 ACAATTAAACTGTGCATT 1116

## RESULT 2

US-09-184-418C-60/c  
; Sequence 60, Application US/09184418C  
; Patent No. 6492110  
; GENERAL INFORMATION:  
; APPLICANT: Hahn, Beatrice  
; APPLICANT: Gao, Feng  
; APPLICANT: Shaw, George  
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN  
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1  
; FILE REFERENCE: D6287  
; CURRENT APPLICATION NUMBER: US/09/184,418C  
; CURRENT FILING DATE: 1999-11-02  
; NUMBER OF SEQ ID NOS: 112  
; SEQ ID NO 60  
; LENGTH: 2601  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
; FEATURE:  
; OTHER INFORMATION: isolate=93BR029; gene=tat  
US-09-184-418C-60

Query Match 79.1%; Score 17.4; DB 1; Length 2601;  
Best Local Similarity 94.7%; Pred.No.0.33;  
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

ISULT 5  
-09-184-418C-107/c

```

; Sequence 107, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 107
; LENGTH: 2574
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94IN476.104; gene=env
US-09-184-418C-107

Query Match 70.9%; Score 15.6; DB 1; Length 2574;
Best Local Similarity 81.8%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 CACAATTAAAACTGTGCATTAC 22
|||||
DB 1120 CACAATTAAAGCTATGTGTAC 1099
|||||

RESULT 6
US-09-184-418C-104/c
; Sequence 104, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 104
; LENGTH: 2633
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=94IN476.104; gene=tat
US-09-184-418C-104

Query Match 70.9%; Score 15.6; DB 1; Length 2633;
Best Local Similarity 81.8%; Pred. No. 1.6;
Matches 18; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 CACAATTAAAACTGTGCATTAC 22
|||||
DB 1526 CACAATTAAAGCTATGTGTAC 1505
|||||

RESULT 7
US-09-184-418C-105/c
; Sequence 105, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184,418C
; CURRENT FILING DATE: 1999-11-02

```

```
NUMBER OF SEQ ID NOS: 112
EQ ID NO 105
LENGTH: 2651
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=94IN476.104; gene=rev
09-184-418C-105

very Match          70.9%; Score 15.6; DB 1; Length 2651;
est Local Similarity 81.8%; Pred. No. 1.6;
atches 18; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

1 CACAATTAAACTGTGCTTAC 22
|||||
1387 CACAATTAAAGCTATGTGTTAC 1366

ULT 8
09-184-418C-11/C
sequence 11, Application US/09184418C
atent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
EQ ID NO 11
LENGTH: 8959
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=94IN476.104; 138.1613;"gag";
OTHER INFORMATION: 1418.4428;"pol"; 4361.4939;"vif"; 4879.5169;"vpr";
OTHER INFORMATION: 5150.7782;"tat"; 5289.7939;"rev"; 5378.5638;"vpu";
OTHER INFORMATION: 5556.8129;"env"; 8131.8754;"nef"
09-184-418C-11

very Match          70.9%; Score 15.6; DB 1; Length 8959;
est Local Similarity 81.8%; Pred. No. 2.1;
atches 18; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

1 CACAATTAAACTGTGCTTAC 22
|||||
6675 CACAATTAAAGCTATGTGTTAC 6654

ULT 9
09-184-418C-44/C
sequence 44, Application US/09184418C
atent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
EQ ID NO 44
LENGTH: 2583
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolate=92RW009; gene=env
09-184-418C-44
```

```
Query Match          69.1%; Score 15.2; DB 1; Length 2583;
Best Local Similarity 85.0%; Pred. No. 2.3;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 CACAATTAAACTGTGCTT 20
|||||
DB 1135 CACAATTAAACTATGTGTT 1116
```

```
RESULT 10
US-09-184-418C-41/C
; Sequence 41, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184.418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 41
; LENGTH: 2640
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92RW009; gene=tat
US-09-184-418C-41
```

```
Query Match          69.1%; Score 15.2; DB 1; Length 2640;
Best Local Similarity 85.0%; Pred. No. 2.3;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
```

```
QY 1 CACAATTAAACTGTGCTT 20
|||||
DB 1539 CACAATTAAACTATGTGTT 1520
```

```
RESULT 11
US-09-184-418C-42/C
; Sequence 42, Application US/09184418C
; Patent No. 6492110
; GENERAL INFORMATION:
; APPLICANT: Hahn, Beatrice
; APPLICANT: Gao, Feng
; APPLICANT: Shaw, George
; TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
; FILE REFERENCE: D6287
; CURRENT APPLICATION NUMBER: US/09/184.418C
; CURRENT FILING DATE: 1999-11-02
; NUMBER OF SEQ ID NOS: 112
; SEQ ID NO 42
; LENGTH: 2658
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
; FEATURE:
; OTHER INFORMATION: isolate=92RW009; gene=rev
US-09-184-418C-42
```

```
Query Match          69.1%; Score 15.2; DB 1; Length 2658;
Best Local Similarity 85.0%; Pred. No. 2.3;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
```

```
QY 1 CACAATTAAACTGTGCTT 20
|||||
DB 1400 CACAATTAAACTATGTGTT 1381
```

```
RESULT 12
```

```
3-09-184-418C-4/c
Sequence 4, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 4
LENGTH: 8992
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolates=92RM009; 139.1624:gag; 1690.4428:pol(N-terminus uncertain
OTHER INFORMATION: 4373.4951:vif; 4891.5181:vpr; 5162.7801:tat; 5301.7958:rev;
OTHER INFORMATION: 5403.5648:vpu; 5566.8148:env; 8150.8773:nf
3-09-184-418C-4
Query Match 69.1%; Score 15.2; DB 1; Length 8992;
Best Local Similarity 85.0%; Pred. No. 2.9;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

1 CACAATTAATAACTGTGCATT 20
|||||
6700 CACAATTAATAACTGTGTT 6681

RESULT 13
3-09-184-418C-36/c
Sequence 36, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 36
LENGTH: 2538
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolates=90CR056; gene=env
3-09-184-418C-36
Query Match 64.5%; Score 14.2; DB 1; Length 2538;
Best Local Similarity 84.2%; Pred. No. 5.4;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

2 ACAATTAATAACTGTGCATT 20
|||||
1107 ACAATTAATAACTGTGTT 1089

RESULT 14
3-09-184-418C-54/c
Sequence 54, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 54
LENGTH: 2538
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolates=92NG003; gene=env
US-09-184-418C-54
Query Match 64.5%; Score 14.2; DB 1; Length 2538;
Best Local Similarity 84.2%; Pred. No. 5.4;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

2 ACAATTAATAACTGTGCATT 20
|||||
1119 ACAATTAATAACTGTGTT 1101

RESULT 15
US-09-184-418C-18/c
Sequence 18, Application US/09184418C
Patent No. 6492110
GENERAL INFORMATION:
APPLICANT: Hahn, Beatrice
APPLICANT: Gao, Feng
APPLICANT: Shaw, George
TITLE OF INVENTION: CLONES AND SEQUENCES FOR NON-SUBTYPE B ISOLATES OF HUMAN
TITLE OF INVENTION: IMMUNODEFICIENCY VIRUS TYPE 1
FILE REFERENCE: D6287
CURRENT APPLICATION NUMBER: US/09/184.418C
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 112
SEQ ID NO 18
LENGTH: 2541
TYPE: DNA
ORGANISM: Human immunodeficiency virus type 1
FEATURE:
OTHER INFORMATION: isolates=93BR020; gene=env
US-09-184-418C-18
Query Match 64.5%; Score 14.2; DB 1; Length 2541;
Best Local Similarity 84.2%; Pred. No. 5.4;
Matches 16; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

2 ACAATTAATAACTGTGCATT 20
|||||
1134 ACAATTAATAACTGTGCTT 1116

Search completed: February 20, 2004, 14:42:06
Job time : 5 secs
```